

INDEX TO VOLUME 154, JANUARY-JUNE, 1936

358

INDEX TO VOLUME 154, JANUARY-JUNE, 1936

AGRICULTURE		
Cotton for Highways	341	
Erosion Control	326	
Farm Products in Factories	319	
Frost Chaser	30	
Insecticide—Derris	211	
Soy-Bean Production	36	
Sugar Cane Diseases	113, 144	
AIRPLANES. See Aviation		
ALUMINUM'S FUTURE 65		
ANTHROPOLOGY. See Archeology, etc.		
ARCHEOLOGY, ANTHROPOLOGY, and ETHNOLOGY		
Babylon's "Solid Beer"	277	
Beth-Shan, Palestine	76	
Helical Gears in Middle Ages	206	
Indo-Chinese Elephant	4	
Interglacial Man in America	325	
Minturnae	301	
Missionaries of Science, Amateur	177	
Nebraska, Protects Antiquities	226	
"Optical" Rouge	207	
Peking Man, Food of	14	
Roman Excavations	301	
Serpent Mound in Ohio	182	
ARMY & NAVY		
Aeronautics in Naval Architecture	276	
Armor Piercing Shell, New	88	
Army Equipment, Motorized	192	
Bomber versus Pursuit Planes	202	
Capital Ship's Structural Defense	259	
Civil Aviation in National Defense	10	
Diesels for Battleships?	18	
Monitor Drawings	38	
Pacific Piffle	64	
Raw Materials, Strategic	138	
Refueling System for Army Cars	36	
Seaplane Record, Navy	33	
Tear Gas Projectile Brazed	291	
Tripartite Naval Treaty	305	
War Fire	272	
ASTRONOMY		
Bridge Builder, Lawyer, Manufacturer	176	
Double Stars	314	
Earth Safe from Collision	248	
McDonald Observatory	137	
Minor Planets	136	
Nova Herculis, More About	74	
Planets, Minor	184	
Solar Tower	176	
Star Finder, Simple	265	
Sun-Spots and Magnetic Storms	270	
Telescope Maker, Amateur	40, 96, 153, 214	
Telescopes, Space Penetrating Power of	280, 342	
Telescope, 200-Inch	12	
Telescopes, 12-Inch, Amateur	237	
ASTROPHYSICS. See Astronomy		
AUTOMOBILES		
Air Conditioned Motor Vehicles	150	
Automobiles, European	241	
CO, Death and	61	
Cylinder Repairs Checked	162	
Death and the Motor Car	9	
Death on Four Wheels	122	
Headlight Bulb, Bar Filament	224	
Horns or Brakes?	33	
Military Motorized Equipment	192	
Rail-Highway Truck	268	
Refueling System for Army	36	
Test Equipment	199	
Tire, Non-Skid	87	
AVIATION		
Air Camera for Amateurs	203	
Airline Bids, Pacific	31	
Airmail by Rocket?	202	
Air Operation, Cold Weather	89	
Airport Directory	33	
Air Records	278	
Airships, Build?	177	
Airship Survey Report	267	
Amphibian, Fairchild 91	267	
Atlantic Flight	173, 177	
Automatic Flight	202	
Aviation, Banner Year for	278	
Beacon, Airport	201	
Blind Flying by Sound	266	
Bomber Versus Pursuit	202	
Brakes for Airplanes	148	
Catapulting Commercial Airplanes	270	
Civil Aviation in National Defense	10	
Club Car, Flying (Boeing 247-D)	32	
Coupe for Private Flying	203	
De-Icing the Propeller	200	
Drift and Speed Indicator	200	
"Flying Flea"	146	
Great Circle Aircraft Construction	146	
Hindenburg	330	
Home Airplane Design	89	
Instruments, Light for	33	
Lubrication by Centrifugal Action	201	
Meteorology, Visibility in	33	
"Motor Glide"	272	
Nosing Over, Experiments in	332	
Octane Rating (100)	201	
Plastic Materials? Airplanes of	105	
Propeller Blades, Machining	90	
Radio Flying	322	
Rockets, Pioneer Work With	89, 202	
Roof Top Landings	33	
Seaplane Record, Navy	33	
Sleepers, Douglas	147	
Tailless Private Airplane	32	
BIOGRAPHY & PORTRAITS		
Armstrong, Major Edwin H.	3	
Carrel, Dr. Alexis	235	
Curie-Joliot, Irene	83	
Heisenberg	80	
Joliot, Prof. F.	83	
Kettering, Charles F., Award to	203	
Livingston, Dr. M. S.	116	
Mahan, Admiral, Projected Biography of	204	
Mottern, H. H.	119	
Seeburger, Mrs. M. M.	195	
Swasey, Ambrose	115	
Zworykin, Dr. V. K.	69	
BOTANY		
Floriculture, Electrical	133	
Lily, Nondehiscent	34	
Pasteurized Dirt	273	
Peanut-Walnut	273	
BRIDGES		
Aluminum Floored Bridge	67	
Golden Gate Bridge Cables	94	
San Francisco Bridge	60	
BUILDING CONSTRUCTION		
Concrete, Storm Testing	336	
Concrete, "Whipped" (Poretherm)	204	
Glazing, Strip for Double	107	
Lime, Waterproof	107	
Masonry, Rubber for Caulking	268	
Preventing Plant Growth on Masonry	211	
Soil, Sandy, Solidified	340	
Windowless Building Features	208	
CHEMISTRY		
Boron Wearing Surfaces	150	
Cement Particles, Measuring Minute	207	
Chromium Plating	163	
Coal-Tar Chemicals, Shortage of	264	
Concrete, Storm Testing	336	
Concrete, "Whipped" (Poretherm)	38	
Dust Explosions	70	
Dyes, Fast American	316	
Farm Products in Factories	319	
Fresh Water from Sea	121	
Gadolinium Isolated	204	
Hydrogenation Ages Whisky	162	
Methyl Bromide Fire Extinguisher	145	
Microscopic Chemistry	352	
Molding Material, Anti-Friction	273	
Oils, New Test for	95	
Paraffin, Uses for	335	
Phenothiazine for Moth Control	145	
Preventing Plant Growth on Masonry	211	
Printing, Chemistry Speeds Up	108	
Rat Killer, Dry Ice as	338	
Soap versus Soapless Soap	30	
Soil, Sandy, Solidified	340	
Temperature Control	149	
Tetrone B	332	
Turpentine, Dehydration of	353	
Wood Distillation	265	
Wood Pulp Utilization	189	
"Zam" Improves Zinc Plating	206	
CRIME		
Documents, Photographing Burned	339	
Fingerprint Differences	333	
Fingerprint Machine	150	
Section Slicer	73	
DAMS		
Boulder Dam, Schematic View of	199	
Boulder Dam, Turbine Casing	87	
Fort Peck Dam	306	
France, Second Highest Dam in	270	
Silt Removal, Colorado River	91	
DIESELS		
Diesels for Battleships?	18	
Weight Saving in Construction	328	
DIRIGIBLES. See Aviation		
DUST EXPLOSIONS 70		
ECONOMICS		
Industry and Employment	241	
ELECTRICITY		
Auto Bulb, Bar-Filament	224	
Electrocamera	265	
Fan, Safe	270	
Floriculture, Electrical	133	
Fly Killer, Electric	328	
Garden Lighting	336	
Generating Plant, Home-Built	129	
Generator, Bicycle	210	
High Voltage, Commercial Research in	84	
Milk Purified by Electricity	224	
Motor, Multi-Speed	273	
Telephone, "Speaking Clock" for	272	
ELECTRONICS. See also Radio		
Beam Power Amplifier	351	
Color Analyzer	149	
Electron Lens (Zworykin)	250	
Electron Multiplier	68	
Photo Cells for Many Uses	205	
Photronic Cell, High-Output	106	
Television Motor	269	
Tuning Indicators	351	
ENGINEERING, CIVIL. See also Bridges, Dams, and Tunnels		
Bordeaux, Modern Port for	252	
Caissons, Gyration	196	
Cape Cod Canal	26	
Fort Peck Dam	306	
Oil Lines Bridge Highway	211	
River Bed, Stainless Steel	164	
Sea-Shore Erosion	130	
Silt Removal, Colorado River	91	
ENGINEERING, MECHANICAL		
Cable Wire, New Test for	205	
Helical Gears in Middle Ages	206	
Newcomen Engine Reconstructed	260	
Strip Shovel, World's Largest	264	
ENTOMOLOGY		
Beetles, Japanese, Resisted Winter	264	
Codling Moth Control	145	
Mantis	304	
Mosquitoes Cause Deaths	161	
Sugar Cane Pests	86	
ETHNOLOGY. See Archeology, etc.		
FABRICS, WHY FADED? 316		
FINE ARTS		
Gold Art Revived	88	
Ultra-Violet for Art Examination	36	
FIRE		
Cotton Duck, Fireproofing	290	
Fire Extinguisher, Methyl Bromide	145	
Oil Fires, Extinguish, With Water	31	
FISH and FISHERIES		
Live Bait May Spoil Fishing	273	
Smothering Fish	30	
Swordfish Stabs a Boat	332	
Trout, Hatchery, Do They Go Wild?	242	
FOODS		
Eggs, Keeping, Fresh	341	
Food versus Beauty	163	
Fruit Preserved with Iodized Wrap-	271	
pers	291	
Meat, Saving	291	
Milk, Electricity Purifies	224	
Milk Tank Car	274	
Pomo Indian Foods	226	
Vitamin D Excess, Harmless	50	
Vitamins	117	
FORESTRY		
Conservation of Wilderness	121	
"Dead Heads" Reclaimed	92	
Erosion Control	326	
Haze Meter	338	
Pruning Saw, Power Driven	163	
Timberland, Sad State of Nation's	161	
FUELS		
Fuel from Sewer Gas	271	
Gas Generators, Home	87	
Gasoline Prices	198	
Octane Rating (100)	201	
Oil Source, Searching for	163	
Oil Well Shot Test	52	
GAME		
Duck Inventory	225	
Game Increase	64	
GEOLOGY		
Dry-Ice Well Leased	94	
Earthquakes, Laboratory	144	
Earth's Age, Chemical Estimates of	205	
Seismology, Amateur	194	
Springs, Hot and Cold, Australian	272	
Underground Rock Located by Sound	271	
GLASS		
Double Glazing, Strip for	204	
Laboratory Built of Glass	148	
HEALTH. See Medicine		
HYPNOTISM 126		

INSECTS. See *Entomology*

JUNK INDUSTRY 186

LUBRICATION

Compressor, Oilless	51
Lubrication by Centrifugal Action	201
Oil, New Test for	95
Viscous Oil	333

MARINE

Aeronautics in Naval Architecture	275
Beacon, Swedish Radio	148
Bordeaux Port	252
Marine Grass Cutter	268
Normandie—Transatlantic Monstrosities	9
Queen Mary, Mechanical Innovations on	334
Queen Mary—Transatlantic Monstrosities	9
Towing Tank	255

MATHEMATICS

Protractor, Triangular	38
Trisecting the Angle	190
Trisection Correction	332

MEDICINE

Artificial Respiration, Surer	17
Blood from the Dead	335
Blood Test Before Marriage	31
Bone Surgery with Machine Tools	178
Burns, Tannic Acid Treatment for	51
Caesarean, Caesar Not Born by	205
Children, Malformed	269
CO, Death and	61
Colds	241
Colds, Flu and Pneumonia	210
Drugs, Old, Destroyed	352
Eye Cancer—Glioma	209
Glass Tube in Blood Vessel	274
Heart Disease, New Treatments for	265
Hearts, Revived Human	332
Honey for Wounds	52
Insanity Increase	277
Marihuana Menaces Youth	150
Medicines Will Taste Better	224
Metabolism of Chickens	225
Mosquitoes Cause Deaths	161
Nervous Breakdowns	352
Noise Standard to Aid Hearing	272
Painless Dentistry, Formula for	164
Paresis, Monkey Malaria Fights	106
Pimples	145
Rhythm Lessens Fatigue	337
Rickets Prevention	271
Septic Sore Throat	206
Showers Before Swimming	270
Skin Graft Triumph	88
Skin Trouble Caused by Lipstick	204
Sleeping Powders, Antidote for	162
Smoking, Effects of	310
Spinach	340
Surgical Needle, Rethreadable	207
Syphilis and Gonorrhea	277
Syphilis, Eradication of	91
Toe Out—Toe In	94
Tooth Decay	198
Trench Mouth Increase	148
Vitamin D Excess, Harmless	50
Vitamins	117
Wounds, Cure for Stubborn	36

METALLURGY

Alnico	208
Aluminum, Bright Finished	276
Aluminum Roads	209
Aluminum's Future	65
Bauxite Mine	172
Boron Wearing Surfaces	150
Chromium Plating	163
Gadolinium Isolated	204
Gold Art Revived	88
Lithium Six	334
Metalloscope—Treasure Finder	198
Nickel Plating, Bright	328
Platinum Flute	336
Radium, Arctic	262
Rhenium Plating	165
Rhodium Plating	165
Scrap Metals	186
Silver Plate, Non-Tarnishing	339
Stainless Steel River Bed	164
Stainless Steel Sheet, Huge	274
Steels, Testing by Sparking	125
Zinc Plating Improved	206

METEOROLOGY

Dust-Storm Area, No Sahara in	94
Earth Tides	31
Meteorography, Radio	147
Snow Garlands	35
Temperature, Extremes of	336
Visibility in Flight	33
Winters of 1935 and 1936, Comparison	270

MICROSCOPY

Bacteria Incubator, Inexpensive	34
Chemistry, Microscopic	352
Micro-Movies, 16 mm.	35
Section Slicer	73

MISCELLANEOUS

Belgian National Park	226
Bethwackment, 16th Century	151
Bureau of Standards "Visitor's Manual"	274
Calendar Error	339

Cellophane Wrapped Pipe	275
Cosmetics, Man's	87
Drafting Board, Professional	272
Food versus Beauty	163
Glass, Telescope, For Cooking	198
Gloves Fitted Scientifically	204
Hide Finishing, Accuracy in	212
Ionized Wrappers Preserve Fruit	271
"Jumbo"	21
Liquid Measuring Pump, Automatic	275
"Optical" Rouge	207
Platinum Flute	336
Reed Tuner, Visual	333
Rockets, Pioneer Work With	89
Stop Watch, Wrist	333
Thermometer Uses "Coils Within Coils"	49
Wire Mileage	86

MOVING PICTURES. See *Photography and Moving Pictures*

NATURAL HISTORY

Gynandromorph Ants	212
Tame Cats Gone Wild	224

NAVY. See *Army and Navy*

OFFICE APPLIANCES

Paper Crimping Machine	208
Photo-Copying Device	225
Rotary Duplicator	276

OPTICS

Seeing in Dark	250
Spectacles, Lying-Down	264
Stereoscope, Single Picture	207

PAINTS AND VARNISHES

Lacquer Finish, Stretchable	226
Laundry Uses Aluminum Paint	52
Paint, Vanilla	274
Turpentine, Dehydration of	353

PAPER

Crimping, Machine for	208
Wood Pulp	189

PATENTS

Patents and Industry	79
Preserving Proof of Invention	213

PHOTOGRAPHY and MOVING PICTURES

Aerial Photograph of Connecticut	90
Air Camera For Amateurs	203
Bulletin Board—Darkroom	159
Caricature, Photographic	102
Chemicals, Packaged	47
Contaflex	47
Contest, Photographic	219
Darkroom Uses for Boxes	348
Developer, Fine Grain	159
Developer, Glycin Paper	286
Developer, Quinolin	220
Documents, Photographing Burned	339
Easel Copying Stand	159
Electrocamera	265
Exposure Meter, Photocopy	103, 160
Feet, Try "Shooting"	47
Film File, Home-made	48
Film, 35-mm. in Bulk	287
Flood Lamps, New	159
Focusing Aid	221
"Ghosting"	346
Hobby Photography	300
Infra-Red Nature Photography	158
Interpretations, Camera	290
"Jumpy" Screen Makes Smooth Movies	287
Lens Hood and Sky Filter	221
Lens Screen	35
Loading Tank, Daylight	104
Micro-Movies, 16 mm.	103
Miniature, Argus	159
Mistakes, Others'	107
Mounts, Screw-In	92
Movie History	349
Movies, Chemistry in the	347
Negatives, Viewing	219
Nightmare, Photographic	219
Paper Negatives, "Opaline Parchment"	47
Portraiture "Kink"	47
Range Finder	46
Screw Adapter, Tripod	286
Series Photography	218
Silhouettes, Daylight	269
"Smokestacks"	348
Sound Recorded by Ultra-Violet	159
Sports, "Shooting"	104
Still-Movie Camera	28
Stirring Rods	103
Streak Photography	287
Surfaces, Studies in	35
Tape, Scotch Adhesive	284
"Transatlantic Tunnel"	347
Travel Photography	28
U. S. S. R., Camera Hunting in	305

PHYSICS

Air Waves, Photographing	80
Atomic Physics, Books on	333
Atom, Why Does the, Stick Together?	277
Dewar Flasks	257
Heat Transfer Made Visible	5
Neutrino, Mystery of the	116
Radium, Artificial	197
Smashing Atoms, Mechanisms for	149
Sun, Energy	
Temperature Control	

PORTRAITS. See *Biography and Portraits*

POWER

Casings for Turbines at Boulder Dam	87
Motor Runs on Sewer Gas	271
Steam Generation by Electricity	334
Sun, Energy from	197

RADIO

Abbreviations, Radio	350
Aerials, Indoor	45
All-Wave Selectivity	101
Auto Ignition Interference	45
Beam, Flying the	322
Beam Power Amplifier	351
Broadcasting, British	289
Cuban "Phones"	157
Frequency Drift	350
Frequency Modulation	157
Interference, I-F	101
Interference, "The Shadow"	100, 157, 288
Listen, Where to	350
Metal Tubes Here to Stay	100
Metal Tubes, New	101
Noise Silencer	222
Noise Silencer Adapters	289
Politics and Power Loads	289
"Queen Mary's" Radio Equipment	101, 334
Radio Alarm Foils Intruders	279
Radio Beacon, Swedish	148
Radio Meteorography	147
Receiver Alignment	289
Reception, Two-Way	45
Resonance Indicator	350
"Shadow," The	100, 157, 288
Skip-distance, Overcoming	44
Television Cable, German	351
Television's Status	121
Ten Meters, Tuning to	289
Tone Control, Use of	45
Transmitter, Smallest Micro-Wave	285
Tube-For-Tube Comparison	101
Tuning Indicators	351
Verify Foreign Stations	45
Volume Control, Automatic	156
Volume Expansion	223

RADIUM, ARCTIC

RAILROADS

American Influence On European Railroads	145
Inventions, Railroad	333
Rail-Highway Truck	268
Tank Car for Milk	274
Tractive Power, Rise in Locomotive	164
Train Stop, Automatic	265

REFRIGERATION WITH STEAM 34

ROADS

Aluminum Roads	209
Concrete Roads, Rubber Joints for	290
Cotton for Highways	341
Europe's Route #1	206
Moving a Highway with Hose	86
Salt Roads	52

RUBBER

Latex Coated Textiles	162
Member Caulking for Masonry	268
Rubber in Industry	22
Rubber Joints for Concrete Roads	290
Rubber-Lined Pipe	335
Rubber, Tanks Coated with	162
Self-Vulc	51
Sponge Rubber, Wider Use for	92
Synthetic Rubber Elongation	87

SAFETY

Artificial Respiration, Surer	17
Bath Tub, Safety	149
CO, Death and	61
Death and the Motor Car	9
Death on Four Wheels	122
Dust Explosions	70
Explosion Menace	211
Fan, Electric, Safe	270
Gas Danger, Robot Detects	269
Horns or Brakes?	305
Radio Alarm Foils Intruders	279
Sleeping Powders, Antidote for	162

SANITARY SCIENCE

Aluminum Paint for Laundry	52
CO, Death and	268
Showers Before Swimming	270
Trench Mouth	148

SMOKE, IF YOU 310

TELESCOPES. See *Astronomy*

TEXTILES

Cotton Duck, Fireproofing	290
Cotton for Highways	341
Fabrics, Why Faded?	316
Latex Coated Textiles	162

TUNNEL, WORLD'S LARGEST-BORE 30

ULTRACENTRIFUGE 329

WELDING, RÉSUMÉ OF 244

WOMEN ATHLETES 142